PHYSIOLOGICALLY RELEVANT MODELS OF THE IMMUNE SYSTEM

ATCC primary immunology cells are able to support complex, physiologically relevant research projects, including toxicity screening, transplantation and graft rejection, inflammation and allergy, vaccine, drug development, as well as cancer immunology studies. Our Scientists have conducted in-depth characterization of the cells in this collection. Furthermore, this collection reliably provides:

- Greater than 90% cryo-recovery
- Consistent plating efficiency
- High differentiation capacity
- Greater than 90% purity
- Expansion and differentiation protocols
- Thorough sterility screenings
- Positive and negative biomarkers
- Normal cell morphology

The multipotent bone marrow and cord blood CD34+ hematopoietic stem cells within this collection give rise to either more stem cells or to common myeloid or lymphoid progenitor cells. These cells then give rise to the more differentiated components of the immune system, which may then migrate to the tissues for further specialization. Moreover, the peripheral CD14+ cells in this collection can be induced to differentiate into dendritic cells or macrophages. Finally, the mononuclear cell preparations from the bone marrow or peripheral blood include differentiated macrophages, dendritic cells, monocytes, and lymphocytes, as well as a smaller fraction of hematopoietic cells (Figure 1).

![Figure 1. Differentiation of Multipotent Hematopoietic Progenitor Cells](image-url)
CUSTOMIZABLE FOR ANY EXPERIMENT
The cells in this product listing, this collection have many customizable options. ATCC has access to a wide range of unique donors, presenting immunologists the ability to design almost any experiment. Further, ATCC primary immunology cells have been obtained from donors via institutional review board-approved protocols that follow cGMP and cGTP tissue collection and processing guidelines.

We can provide donor-specific characteristics or fill requests for specific:

- Height and weight
- Age
- Ethnic and gender
- Lifestyle
- HLA and blood type
- Diet
- Family history
- Other specific parameters

ATCC PRIMARY IMMUNOLOGY CELLS

<table>
<thead>
<tr>
<th>Cell Type</th>
<th>ATCC® No.</th>
<th>Number of Cells/vial</th>
<th>BioMarkers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone Marrow CD34+ Cells</td>
<td>PCS-800-012</td>
<td>500,000</td>
<td>Positive Markers: CD34, CD45</td>
</tr>
<tr>
<td>Cord Blood CD34+ Cells</td>
<td>PCS-800-014</td>
<td>500,000</td>
<td>Positive Markers: CD34, CD45</td>
</tr>
<tr>
<td>Peripheral Blood CD14+ Monocytes</td>
<td>PCS-800-010</td>
<td>50 million</td>
<td>Positive Markers: CD14, CD45</td>
</tr>
<tr>
<td>Bone Marrow Mononuclear Cells</td>
<td>PCS-800-013</td>
<td>25 million</td>
<td>Positive Marker: CD45 Lot Specific FIO*: CD3, CD8, CD4, CD58, CD14, CD19, CD34</td>
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<tr>
<td>Peripheral Blood Mononuclear Cells</td>
<td>PCS-800-011</td>
<td>25 million</td>
<td>Positive Marker: CD45 Lot Specific FIO*: CD3, CD8, CD4, CD56, CD14, CD19</td>
</tr>
</tbody>
</table>

*For information only (FIO); Lot-specific FIO is not release criteria. Check individual lots for CD-specific numbers.

REFERENCES

Explore more at www.atcc.org/immunology